themselves curative, they afford us a means of bringing our medicines in contact with the diseased surfaces, and most important of all, they permit us to keep the inflammatory areas at rest, and this will be admitted by the strongest opponent of surgery as being one of the greatest desiderata in any inflammatory condition.

CONCLUSIONS.

A large number of patients with chronic dysentery do not get well under medical treatment alone.

The cases are principally of the amebic type, with prospects of exacerbations, abscess of the liver, contraction of the bowel, and marasmus.

These complications may be obviated in many cases by a timely operation.

The operative procedures are not in themselves particularly dangerous.

The relief afforded is immediate, and will result in cure in many instances.

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TUBERCULOSIS OF MAMMARY GLAND.*

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THE subject of this paper, as you know, is tuberculosis of the mammary gland. In selecting this topic for my theme I have not hoped to be able to impart any information on the subject to the society, much less contribute anything new. My motive in so choosing has been somewhat selfish, viz.: to elicit from the discussion that information which I have been unable to obtain from any other source. Yet I do make this one claim of excellence for this paper. It is short.

There does not seem to be much written on the symptoms, diagnosis, etc., of this disease; if so, I have been unable to find it. It is probably true that many of the cases that have been diagnosed carcinoma of the breast, have in reality been tubercular mastitis, just as before the microscope revealed its true nature, lupus was mistaken for rodent ulcer or epithelioma.

Tuberculosis of the breast may occur at any time after puberty; no cases before puberty have been recorded. With regard to infection, it is said to be more or less direct, usually through the milk ducts and often seems to follow lactation remotely. It is frequently bilateral.

The symptoms are such as follow consolidation of the gland, viz.: weight resulting from tissue formation and sensitiveness with spasmodic pain out of all proportion to the growth; this is said to be peculiar to the disease. The disease starts in one lobule and spreads to others, so that several hard, firm nodules result; these nodules move only with the gland. Lymphatics may or may not be involved, according to the stage of advancement. The skin becomes reddish and mottled and early becomes attached to the nodules, which shows serious and deep-seated trouble.

The tubercle bacillus cannot always be found in a section of a nodule or in the pus alone, but an examination of the two together will almost always show bacilli. Microscopical examination shows the usual tubercle formation with caseous degeneration, and in sections where the bacillus itself is absent, the presence of giant cells is almost diagnostic.

There has been some discussion as to whether or no cachexia is caused by this disease when in a purely uncomplicated form; many authorities claiming that cachexia is always due to mixed infection and never to the tubercle bacillus alone, while others still hold the view that there is a true tubercular cachexia. It has been quite well established, however, that this group of symptoms is always due to a mixed infection. The diagnosis is made by the general condition and history of the patient, the distinct, hard, smooth, firm nodules, the immobility of the growth, the attachment of the skin, and the extreme spasmodic pain; the microscope, of course, deciding the diagnosis if the tubercle bacillus be found.

De Costa speaks of a chronic abscess of the breast which is tubercular, as a lump which slowly enlarges and finally ruptures, forming sinuses. The axillary glands are apt to be involved. The patient gives a tubercular history, with history, as a rule, of previous tubercular trouble of various sorts, and has usually borne children. Chronic abscess of the breast causes little or no pain. It may be treated as any cold abscess elsewhere; if small, open it with aseptic care, rub its walls with gauze to remove tubercular masses, irrigate with bichloride solution 1.1000, pack with iodoform gauze and dress antiseptically. It is wise to remove the entire gland and clear out axilla in order to prevent recurrence and dissemination. There was a case of tuberculosis of the breast in an inmate of our Hospital recently,

* Read before the Napa County Medical Society.

which presented some interesting features. The history of the case is as follows:

The patient, Mrs. M., had been apparently well physically, although very insane and violent, until she was vaccinated, which was done the latter part of March, during our late quarantine for smallpox. Nothing was known of the patient's family history.

I did not see her until several weeks after she had been vaccinated as I was not going into the wards, being in charge of the contagious cottage at that time, but the attendant told me afterwards that the arm was very much inflamed and the glands under the arm enlarged. There was nothing surprising in this, however, but soon the attendant noticed what she described as the "vaccination spreading to the breast" and, thinking that there was something wrong, called my attention to it. When I first examined it, the entire breast was considerably swollen and inflamed and presented all the indications of a rapidly developing growth with hard, nodular masses.

The patient was operated upon June 10th by Superintendent Stone. Halstead's operation for amputation of the breast was performed with very thorough extirpation of diseased tissue, and the axilla cleaned out as the lymphatic glands were extensively involved. Rapid recovery followed the operation. The wound healed by first intention, except for about a couple of inches of the incision which gaped on account of the giving way of the stitches. There was considerable tension, and the patient being very violent, managed to work the bandages loose enough to get some motion of the arm the day following the operation. This space, however, rapidly filled in with granulations; the healing was complete and the scar looked healthy.

Later, however, the patient's general health failed rapidly; she developed a cough, became greatly emaciated and died October 13th of general tuberculosis, four months after the operation.

This case had been considered carcinoma by all the assistant physicians, and no question had been raised until Dr. Stone expressed the belief that it might be tubercular and advised a microscopical examination. This proved to be the case, as the microscope showed abundant tubercle bacilli. Two microscopical examinations of the nodules were made, both showing tubercle bacilli, and a short time before the death of the patient an examination of the sputum also revealed the germs in great numbers. The question of the mode of infection in this case is interesting, as suggesting the possibility, or rather probability, of direct inoculation with tubercle bacilli from vaccine lymph. The site of vaccination was at a point where numerous lymphatic vessels drain into the axillary glands which, in turn, are joined by the mammary lymphatics.

Another case which came under my observation, though rather indirectly, as I had little opportunity to study the case, was that of a lady living in San Bernardino who had come to Southern California for her health several years ago. Her family history was markedly tubercular; all her brothers and sisters having died of consumption. She was in very poor health and was probably tubercular at the time she came to California, but had recovered her health to such an extent that she considered herself out of danger from consumption, although she was never very strong and was often ailing, but was in good flesh and to a casual observer appeared well. She had a severe attack of the grip one year ago last winter and some time afterward several hard nodules formed in the breasts, the disease being bilateral. Both glands were about equally affected. She complained of severe sharp pains at times; was very nervous and complained of general malaise. At the time I saw her she was still in good flesh but looked ill and seemed much depressed. The growths were not extensive; there was no adherence of the skin to the nodules and no discoloration. She told me that her physician feared it might be cancer and advised operation which she was seriously considering, but desired to build up and become stronger before undergoing the operation. I did not see her again. Not long afterward she became worse and died of acute miliary tuberculosis. No microscopical examination was made in this case, but it seems evident that the local disease was a part of a general tubercular condition.

In the treatment of tuberculosis of the mammary gland, the question of amputation is of the most vital importance. Complete extirpation of the breast and cleaning out of the axilla should be done in all cases where the patient will permit.

Every attempt to improve the general health and to increase the resisting power of the patient just as in manifestations of tuberculosis elsewhere should be made. The patient should be kept out of doors from early in the morning till four or five o'clock every afternoon, avoiding cold winds and moisture, overheating, etc. Give plenty of nourishing food, as much as the stomach can digest—olive oil, cream, milk, butter and eggs. Plenty of raw eggs given in lemonade to prevent torpidity of the liver, has been highly recommended, and it is said that patients may become accustomed to taking as high as six or eight eggs daily with benefit. The subject of serum and antitoxin treatment is always interesting and alluring, but unfortunately is not, as yet, very encouraging.
